ULTRA-CLEAN FLUOROPOLYMERS

This application is a divisional of U.S. Serial Number 09/495,600, filed February 1, 2000, now allowed, the disclosure of which is herein incorporated by reference.

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Field of the Invention

The present invention relates to ultra-clean fluoropolymers, especially thermoplastic and elastomeric fluoropolymers, compositions incorporating such fluoropolymers, articles employing such fluoropolymers and methods of making and using such fluoropolymers.

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Background

High purity fluoropolymers are used in a number of industries. They are especially preferred for use in the electronic, semiconductor, optical, medical and pharmaceutical industries to name a few. These polymers have a relatively low level of extractable metals and metal compounds.

High purity fluoroelastomer compositions are known. See EP-B-0 708 797 which discloses an elastomer composition comprising

- (A) a peroxide-curable elastomeric fluoropolymer,
- (B) an organic acid acceptor,
- (C) an organic peroxide,
- (D) a coagent for the organic peroxide, and
- 30 (E) a fluoropolymer micropowder filler.

 This composition is said to be free from carbon fillers and have less than 500 ppb of extractable metals and metal compounds. This low content of metals and metal compounds is achieved by selecting metal-free acid acceptors, coagents